

# SAFETY DATA SHEET

Version 8.11 Revision Date 04/28/2025 Print Date 04/29/2025

#### **SECTION 1. IDENTIFICATION**

#### 1.1 Product identifiers

Product name : Isobornyl acrylate

Product Number : 392103 Brand : Aldrich

Index-No. : 607-133-00-9 CAS-No. : 5888-33-5

## 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Synthesis of substances

Uses advised against : The product is being supplied under the TSCA R&D Exemption

(40 CFR Section 720.36). It is the recipient's responsibility to comply with the requirements of the R&D exemption. The

product may not be used for a non-exempt commercial purpose under TSCA unless appropriate consent is granted in writing by

MilliporeSigma.

## 1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Inc.

3050 SPRUCE ST ST. LOUIS MO 63103 UNITED STATES

Telephone : +1 314 771-5765 Fax : +1 800 325-5052

1.4 Emergency telephone

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-

527-3887 CHEMTREC (International) 24

Hours/day; 7 Days/week

## **SECTION 2. HAZARDS IDENTIFICATION**

# GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin irritation : Category 2

Eye irritation : Category 2A

Aldrich - 392103

Page 1 of 14



Skin sensitization : Sub-category 1A

Specific target organ toxicity - single exposure

: Category 3 (Respiratory system)

Short-term (acute) aguatic hazard

: Category 1

Long-term (chronic)

: Category 1

aquatic hazard

## Other hazards

None known.

#### **GHS label elements**

Hazard pictograms





Signal Word : Warning

Hazard Statements : H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

#### Prevention:

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/

spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing must not be allowed

out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/ eye protection/ face

protection.

#### Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and

water.

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a

POISON CENTER/ doctor if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P333 + P313 If skin irritation or rash occurs: Get

medical advice/ attention.

Aldrich - 392103



Page 2 of 14

P337 + P313 If eye irritation persists: Get medical

advice/ attention.

P362 Take off contaminated clothing and wash before

euse.

P391 Collect spillage.

## Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

# Disposal:

P501 Dispose of contents/ container to an approved

waste disposal plant.

# **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Substance

## Components

Chemical name	CAS No./Unique ID	Concentration (% w/w)	Trade secret
isobornyl acrylate	5888-33-5*	>= 90 - <= 100	-

<sup>\*</sup> Indicates that the identifier is a CAS No.

Actual concentration is withheld as a trade secret

#### **SECTION 4. FIRST AID MEASURES**

General advice : Show this material safety data sheet to the doctor in

attendance.

If inhaled : After inhalation: fresh air.

In case of skin contact : In case of skin contact: Take off immediately all

contaminated clothing. Rinse skin with water/ shower.

Consult a physician.

In case of eye contact : After eye contact: rinse out with plenty of water.

Call in ophthalmologist. Remove contact lenses.

If swallowed : After swallowing: immediately make victim drink

water (two glasses at most).

Consult a physician.

Most important symptoms and effects, both acute and delayed

: The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in

section 11



Protection of first-aiders : For personal protection see section 8.

Notes to physician : No data available

#### **SECTION 5. FIRE-FIGHTING MEASURES**

Suitable extinguishing

media

: Foam

Carbon dioxide (CO2)

Dry powder

Unsuitable extinguishing

media

: For this substance/mixture no limitations of

extinguishing agents are given.

Specific hazards during

fire fighting

: Combustible.

Vapors are heavier than air and may spread along

floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or

vapours possible in the event of fire.

Hazardous combustion

products

: Nature of decomposition products not known.

Specific extinguishing

methods

: No data available

Further information : Prevent fire extinguishing water from contaminating

surface water or the ground water system.

Special protective equipment for fire-

fighters

: Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe

distance or by wearing suitable protective clothing.

# **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and

: Advice for non-emergency personnel: Do not breathe vapors, aerosols.

Aldrich - 392103

Page 4 of 14

emergency procedures

Avoid substance contact. Ensure adequate ventilation.

Evacuate the danger area, observe emergency

procedures, consult an expert. Advice for emergency responders: For personal protection see section 8.

Environmental precautions

: Do not let product enter drains.

Methods and materials for containment and

for containment and cleaning up

: Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10).

Take up with liquid-absorbent material (e.g.

Chemizorb® ). Dispose of properly. Clean up affected

area.

#### **SECTION 7. HANDLING AND STORAGE**

For precautions see section 2.2.

Further information on storage conditions

: Tightly closed.

Storage class : 10, Combustible liquids

Recommended storage

temperature

: Recommended storage temperature see product label.

Further information on

storage stability

: Light sensitive.

## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

# Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

**Engineering measures** : No data available

## Personal protective equipment

Respiratory protection : required when vapours/aerosols are generated.

Our recommendations on filtering respiratory

protection are based on the following standards: DIN

EN 143, DIN 14387 and other accompanying

standards relating to the used respiratory protection

system.

Recommended Filter

type:

: Filter type ABEK

Aldrich - 392103



Page 5 of 14

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Hand protection

Remarks : required

Eye protection : Use equipment for eye protection tested and

approved under appropriate government standards

such as NIOSH (US) or EN 166(EU).

Safety glasses

Skin and body protection : protective clothing

Hygiene measures : Immediately change contaminated clothing. Apply

preventive skin protection. Wash hands and face

after working with substance.

#### **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid (68 °F / 20 °C, 1,013 hPa)

Color : colorless

Odor : ester-like

Odor Threshold : No data available pH : No data available

Melting point : No data available

Boiling point/boiling range : 246 - 250 °F / 119 - 121 °C (20 hPa)

Method: lit.

Flash point : 219 °F / 104 °C

(1,013 hPa)

Method: Regulation (EC) No. 440/2008, Annex, A.9,

closed cup

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Aldrich - 392103

Page 6 of 14



Flammability (liquids) : No data available

Burning rate : No data available

Self-ignition : 707 °F / 375 °C

> 1,008.8 hPa GLP: yes

Upper explosion limit / Upper flammability limit

: No data available

Lower explosion limit / Lower flammability limit : No data available

Vapor pressure : < 0.1 hPa (68 °F / 20 °C)

Method: OECD Test Guideline 104

GLP: yes

Relative vapor density : No data available

Relative density : No data available

Density : 0.986 g/cm3 (77 °F / 25 °C)

Method: lit.

Solubility(ies)

Water solubility :  $19.8 \text{ g/l} (68 \degree \text{F} / 20 \degree \text{C})$ 

Method: OECD Test Guideline 105

GLP: yes

Partition coefficient: n-

octanol/water

: log Pow: 4.52

Method: OECD Test Guideline 117

Potential bioaccumulation

Autoignition temperature : No data available

Decomposition temperature

: No data available

Viscosity

Viscosity, dynamic :  $> 7.5 - < 9.5 \text{ mPa.s} (77 ^{\circ}\text{F} / 25 ^{\circ}\text{C})$ 

Viscosity, kinematic : No data available

Flow time : No data available

Explosive properties : No data available

Oxidizing properties : none

Molecular weight : 208.30 g/mol

Particle characteristics

Particle size : No data available

#### **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Forms explosive mixtures with air on intense heating.

A range from approx. 15 Kelvin below the flash point

is to be rated as critical.

Chemical stability : The product is chemically stable under standard

ambient conditions (room temperature) .

Possibility of hazardous

reactions

: No data available

Conditions to avoid : Strong heating.

Incompatible materials : Strong oxidizing agents

products

Hazardous decomposition: In the event of fire: see section 5

#### **SECTION 11. TOXICOLOGICAL INFORMATION**

# 11.1 Information on toxicological effects

# **Acute toxicity**

LD50 Oral - Rat - male - 5,750 mg/kg

Remarks: (ECHA)

Inhalation: No data available

LD50 Dermal - Rabbit - male - > 3,000 mg/kg

Remarks: (ECHA)

# Skin corrosion/irritation

Remarks: Causes skin irritation.

The GHS classification specified by the authority

# Serious eye damage/eye irritation

Remarks: Causes serious eye irritation.

(ECHA)

The GHS classification specified by the authority

## Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse

Result: Causes sensitization. (OECD Test Guideline 429)

# Germ cell mutagenicity

Test Type: Ames test

Test system: S. typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster fibroblasts

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Test Type: Micronucleus test Test system: Human lymphocytes

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 487

Result: negative

# Carcinogenicity

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is

identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No ingredient of this product present at levels greater than or equal to 0.1% is

identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is

on OSHA's list of regulated carcinogens.

# **Reproductive toxicity**

No data available

# Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.

# Specific target organ toxicity - repeated exposure

No data available

# Aspiration hazard

No data available

### 11.2 Additional Information

Repeated dose toxicity - Rat - male and female - Oral

RTECS: UD3940000

To the best of our knowledge, the chemical, physical, and toxicological properties have not

been thoroughly investigated.

## **SECTION 12. ECOLOGICAL INFORMATION**

## **Ecotoxicity**

# **Components:**

# isobornyl acrylate:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 0.704 mg/l

End point: mortality Exposure time: 96 h

Test Type: semi-static test

Aldrich - 392103

Page 9 of 14

Analytical monitoring: yes

Method: OECD Test Guideline 203

GLP: yes

Toxicity to algae/aquatic

plants

: ErC50 (Pseudokirchneriella subcapitata): 1.98 mg/l

End point: see user defined free text

Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes

Method: OECD Test Guideline 201

GLP: yes

M-Factor (Acute aquatic

toxicity)

: 1

Toxicity to daphnia and

other aquatic

invertebrates (Chronic

toxicity)

: NOEC (Daphnia magna (Water flea)): 0.092 mg/l

Exposure time: 21 d Test Type: semi-static test Analytical monitoring: yes

Method: OECD Test Guideline 211

GLP: yes

M-Factor (Chronic aquatic : 1

toxicity)

Persistence and degradability

Components:

isobornyl acrylate:

Biodegradability : aerobic

Inoculum: activated sludge, non-adapted

Concentration: 20 mg/l

Result: Not readily biodegradable. Biodegradation: 50 - 64 %

Exposure time: 28 d

Method: OECD Test Guideline 310

GLP: yes

**Bioaccumulative potential** 

Components:

isobornyl acrylate:

Bioaccumulation : Remarks: No data available

Partition coefficient: n-

octanol/water

: log Pow: 4.52

Method: OECD Test Guideline 117 Remarks: Potential bioaccumulation

Aldrich - 392103

Page 10 of 14

# Mobility in soil

## **Components:**

isobornyl acrylate:

Stability in soil : Remarks: No data available

## Other adverse effects

## **Components:**

# isobornyl acrylate:

Additional ecological

information

: Discharge into the environment must be avoided.

#### **SECTION 13. DISPOSAL CONSIDERATIONS**

# **Disposal methods**

Waste from residues : Waste material must be disposed of in accordance

with the national and local regulations. Leave chemicals in original containers. No mixing with other

waste. Handle uncleaned containers like the product

itself.

## **SECTION 14. TRANSPORT INFORMATION**

# **International Regulations**

## **IATA-DGR**

UN/ID No. : UN 3082

Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.

(isobornyl acrylate)

Class : 9 Packing group : III

Labels : Class 9 - Miscellaneous dangerous substances and

articles

Packing instruction (cargo: 964

aircraft)

Packing instruction : 964

(passenger aircraft)

# **IMDG-Code**

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE,

LIQUID, N.O.S.

(isobornyl acrylate)

Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes

Aldrich - 392103 Page 11 of 14

# Transport in bulk according to IMO instruments

Not applicable for product as supplied.

# **National regulation**

#### 49 CFR Road

Not regulated as a dangerous good

Poison Inhalation Hazard : No

## Special precautions for user

Remarks : EHS-Mark required (ADR 2.2.9.1.10, IMDG code

2.10.3) for single packagings and combination packagings containing inner packagings with

Dangerous Goods > 5L for liquids or > 5kg for solids. Packages smaller than or equal to 5 kg / L , not

dangerous goods of Class 9

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

## **SECTION 15. REGULATORY INFORMATION**

# **CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

# SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

# SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312

Hazards

: Acute Health Hazard

SARA 313 : This material does not contain any chemical

components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by

SARA Title III, Section 313.

## **US State Regulations**

# **Massachusetts Right To Know**

No components are subject to the Massachusetts Right to Know Act.

## **Massachusetts Right To Know**

No components are subject to the Massachusetts Right to Know Act.

## Pennsylvania Right To Know

isobornyl acrylate 5888-33-5

Aldrich - 392103

Page 12 of 14



# **Maine Chemicals of High Concern**

Product does not contain any listed chemicals

# **Vermont Chemicals of High Concern**

Product does not contain any listed chemicals

# **Washington Chemicals of High Concern**

Product does not contain any listed chemicals

# **New Jersey Right To Know**

isobornyl acrylate

5888-33-5

# The ingredients of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

#### **TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

#### **SECTION 16. OTHER INFORMATION**

#### Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA -International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO -International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA -

Aldrich - 392103 Page 13 of 14



Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

Copyright 2020 Sigma-Aldrich Co. LLC. License granted to make unlimited paper copies for internal use only.

Revision Date : 04/28/2025

The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered. For further information please contact mlsbranding@sial.com.

US / EN

